

Set of Preloading Elements

Type 9459

M26x0,75 – for Force Sensors

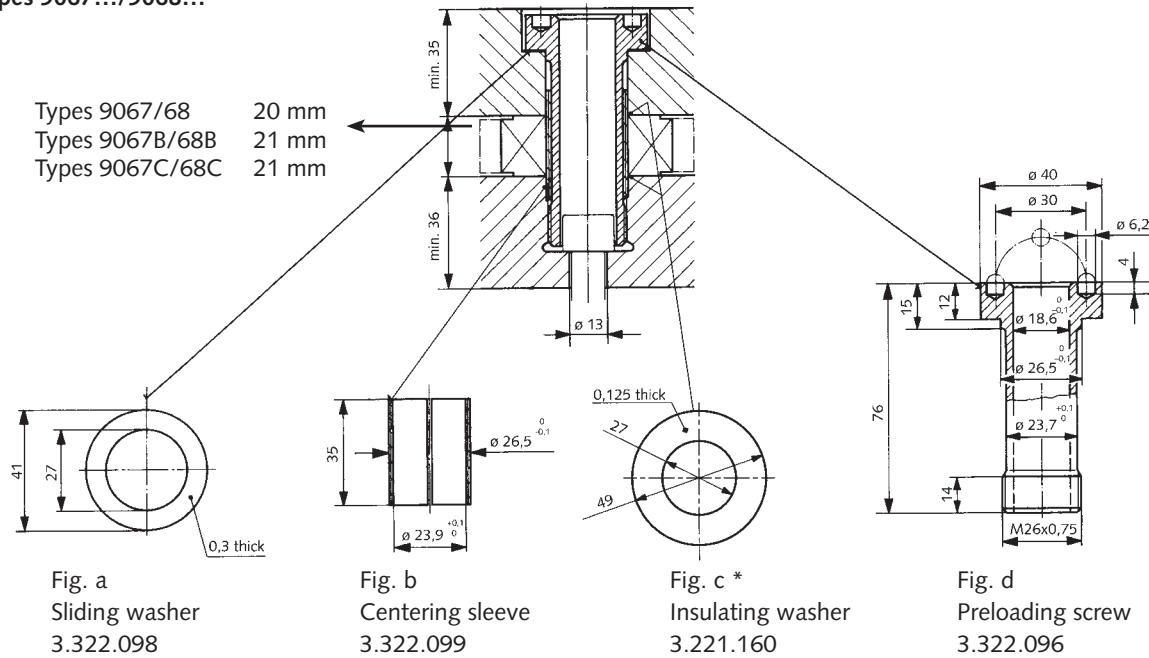
Standard pre-loading elements are used for mounting multi-component force sensor Types

- 9067
- 9068
- 9066A4
- 9067A4
- 9067B
- 9068B
- 9066B4
- 9067C
- 9068C
- 9066C4

that have an internal diameter of 26,5 mm. A set of preloading elements consists of a preloading screw, centering sleeve, sliding washer and two insulating washers.

The pre-loading set Type 9459 assures optimum multi-component sensor performance and allows a very compact installation. A minimum overall height is obtained by recessed mounting of the screw head.

Installing the 3-Component Force Sensor Types 9067.../9068...



Proposed Materials for the Cover and the Base Plate

quenched and drawn

W.-Nr.	1.4045**	1.4021**	1.1191
DIN	x22CrNi17	x20Cr13	Ck45
AFNOR	Z15CN16-02	Z20C13	xC45
B.S.	431S29	420S37	M46
JIS	SUS431	SUS420J1	S45C
AISI/SAE	431	420	1045

** stainless

* only used with Type 9067, 9068, 9067B, 9068B, because sensor is not ground isolated

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Types 9067, 9068, 9066A4, 9067A4, 9067B, 9068B and 9066B4

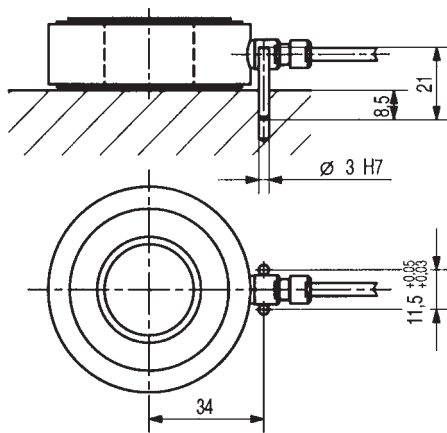
Technical Data

Mounting possibilities for force sensors

Preloading force (nom.)	F_v	kN	160
Screw			
Limit of elasticity	$R_{p0,2}$	N/mm ²	1 250
Tension with $F_v = 160$ kN	σ_v	N/mm ²	950

Alignment of Sensor (Type 9067B, 9068B)

Types
9067B
9068B



Types 9067C, 9068C and 9066C4

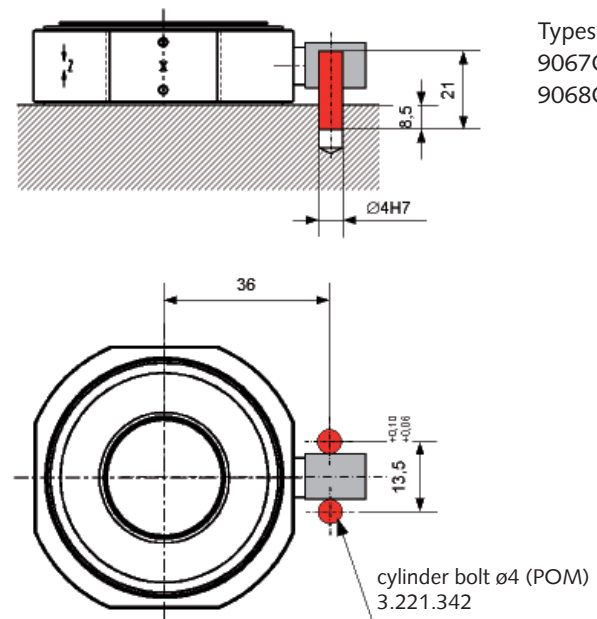
Technical Data

Mounting possibilities for force sensors

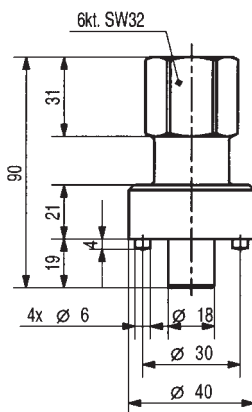
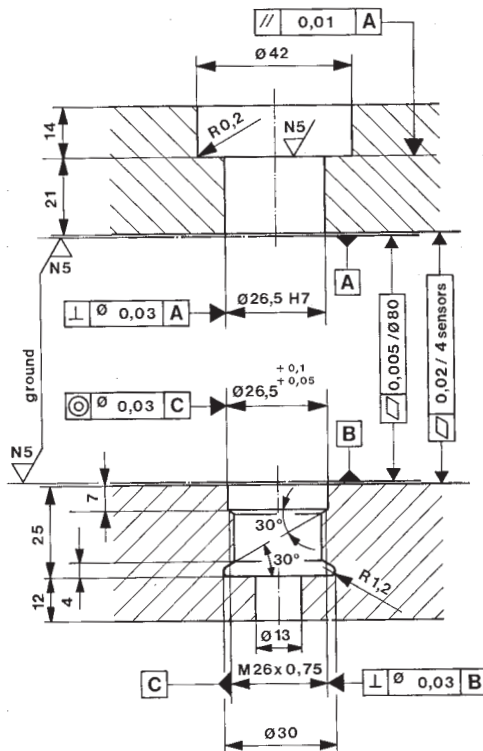
Preloading force (nom.)	F_v	kN	140
Screw			
Limit of elasticity	$R_{p0,2}$	N/mm ²	1 250
Tension with $F_v = 140$ kN	σ_v	N/mm ²	830

Alignment of Sensor (Type 9067C, 9068C)

Types
9067C
9068C



Dimensions



Wrench adapter Type 9477

Installation

The force sensors must be installed under pre-load since the shear forces F_x and F_y are transmitted through static friction occurring between the base plate and top cover plate in contact with the surfaces of the force sensor. The required pre-load depends on the magnitude of the shear forces to be transmitted. The measuring ranges specified in the technical data are valid for the specified standard preload of 160 kN for Type 9067, 9068, 9067B, 9068B and 140 kN for Type 9067C and 9068C.

Proper centering of the sensor is achieved with the centering sleeve. In multi sensor assemblies, connector orientation/axis alignment can be maintained with a combination of sensor Types 9067, 9068, 9067B and 9068B.

Prior to mounting, the contact surfaces of the base and top cover plates must be cleaned free of oils and other contaminating residues.

The insulating washers should be used with Type 9067, 9068, 9067B and 9068B since they provide ground isolated mounting of the sensor.

The sliding washer is installed between the top cover plate and the head of the preloading screw. It reduces the friction and consequently the tightening torque. Moreover, it protects the cover plate surface and the head support from pitting. Prior to pre-loading the sensor, both surfaces of the sliding washer and the threads of the hollow bolt should be slightly greased with special grease Type 1063. It is important that no grease is applied to the contact surfaces of the force sensor.

Tightening of the pre-load screw is easily completed using the wrench adapter Type 9477. If the z-component of the transducer is connected to a charge amplifier, then the preload can directly be measured.

Optional Accessories

- Wrench adapter

Type
9477

Ordering Key

- Set of Preloading Elements
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Type
9459